Remarks

Applicant notes with appreciation the withdrawal of the prior §112 rejections. Claims 1, 2, 4, 14, 15 and 17 are currently pending. Applicant has cancelled Claims 3 and 29-36 in an effort to advance the case to allowance. Claims 1 and 14 have been amended to recite "stroke" in place of "ischemic cerebral stroke". No new matter is added; support for the broader category of stroke is found at page 5 line 30. Claims 1 and 14 have also been amended to recite that an effective amount of immunophilin ligand for cell culturing is between about 1-50 ng/ml (nanograms per milliliter). Again, no new matter is added; support for this amendment can be found on page 10, line 6 of the specification.

Rejections under 35 USC §103

Claims 1, 2, 4-6, 14, 15 and 17 were rejected under 35 USC §103 as obvious in view of White and Hale. Applicant respectfully traverses this rejection and submits that the present claims are not obvious in view of this combination of references.

As noted in a previous response, the claims of the present invention are directed to culturing cells with a compound having affinity for immunophilins in an amount effective to promote growth, survival and integration of the transplanted cells. This amount is a nanomolar amount, from about 1-50 ng/ml of culture media, which when converted to an amount which would be administered to a patient is about 0.03 to 1 mg/kg/day. This amount is much lower than the immunosuppressive dosages used to prevent tissue rejection. Hale, in contrast, is using rapamycin at immunosuppressive levels, on the order of at least 1.5 mg/kg/day, with higher amounts for xenografts, and 50 mg/kg/day for cyclosporin. Hale does not teach or suggest that much lower amounts of this drug can be used to promote growth, survival and integration of neuronal cells.

The Examiner combines Hale with White to arrive at the present invention, but as noted in a previous response, White does not teach the use of immunophilin binding drugs at all, only neuroprotective factors. White does not teach that nanomolar amounts of the immunosuppressive drugs FK506, rapamycin and cyclosporin can be successfully used to promote growth, survival and integration of the transplanted neuronal cells. Therefore, these references cannot be combined to arrive at the present invention.

According to the Examiner, one skilled in the art would have been motivated to use the cells of White in the method of US 6,258,353 with the improved survival of cells treated with rapamycin, as shown in Hale. Applicant respectfully

submits that there is no suggestion anywhere in cited references to use the dosages used in the present invention, those which are effective to promote growth, survival and integration of the transplanted cells. In particular, while immunosuppressive amounts of these drugs may improve survival of the transplanted cells, there is no disclosure in any of the cited references that nanomolar amounts of the drugs in culture will promote growth of neuronal cells. Applicant respectfully submits that Claims 1, 2, 4-6, 14, 15 and 17 are not obvious in view of these references and requests withdrawal of this basis of rejection.

Summary

As all outstanding issues have been addressed, Applicant submits that Claims 1, 2, 4, 14, 15 and 17 are in condition for allowance; such action is respectfully requested at an early date.

Respectfully submitted,

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